

TFL 23

Caribou Field Assessment Report

Turner Creek

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BACKGROUND

Planning Unit

The Turner Creek Planning Unit is illustrated in Figure 1.

Description

This proposed forestry development area is in the ICHmw2 biogeoclimatic variant. This planning unit includes the Turner Creek drainage (Figure 2).

PEM-based seasonal caribou habitat suitability mapping assigns ratings of high for early winter and low for the late winter, spring and summer fall seasons through the proposed development area. (Hamilton and Wilson 2002). (Appendix 11-14)

Early winter caribou telemetry point locations identify use below the road along Turner creek in the lower south edge of this development area, as well as above the road and along the ridgeline to the north (Mt. Abriel). Other seasonal locations are found throughout the high country to the east of the development area (between Cape Horn / Gardner creek and Turner creek).

Caribou management strategy for TFL23 (LUP Working Group 2002) identifies that this proposed development is within the mapped caribou special management zone (Zone 2). The identified caribou connectivity zone (Zone 1) is to the north of this planning area.

RESULTS and DISCUSSION

Four reconnaissance level assessments were conducted in 2005. Field sampling procedures followed those reported by Hamilton and Leitch (2004). Arboreal lichen was estimated according to Armleder et al (1992). Results were recorded on standardized Wildlife Habitat Assessment (WHA) field forms (RIC 1998). Field surveys included recording evidence of caribou, rating caribou habitat value (RIC 1998) and other wildlife observations.

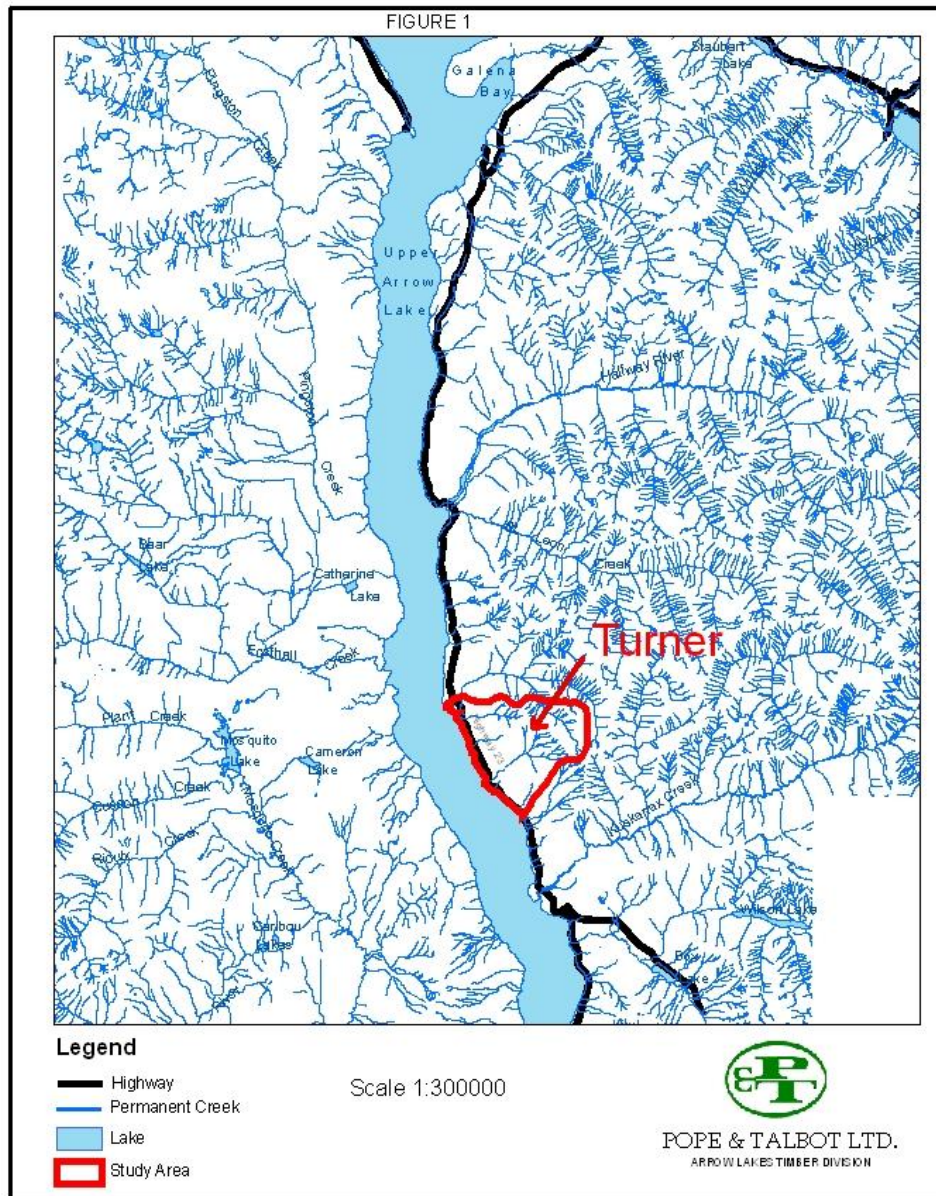


Figure 1: Turner Creek Planning Unit

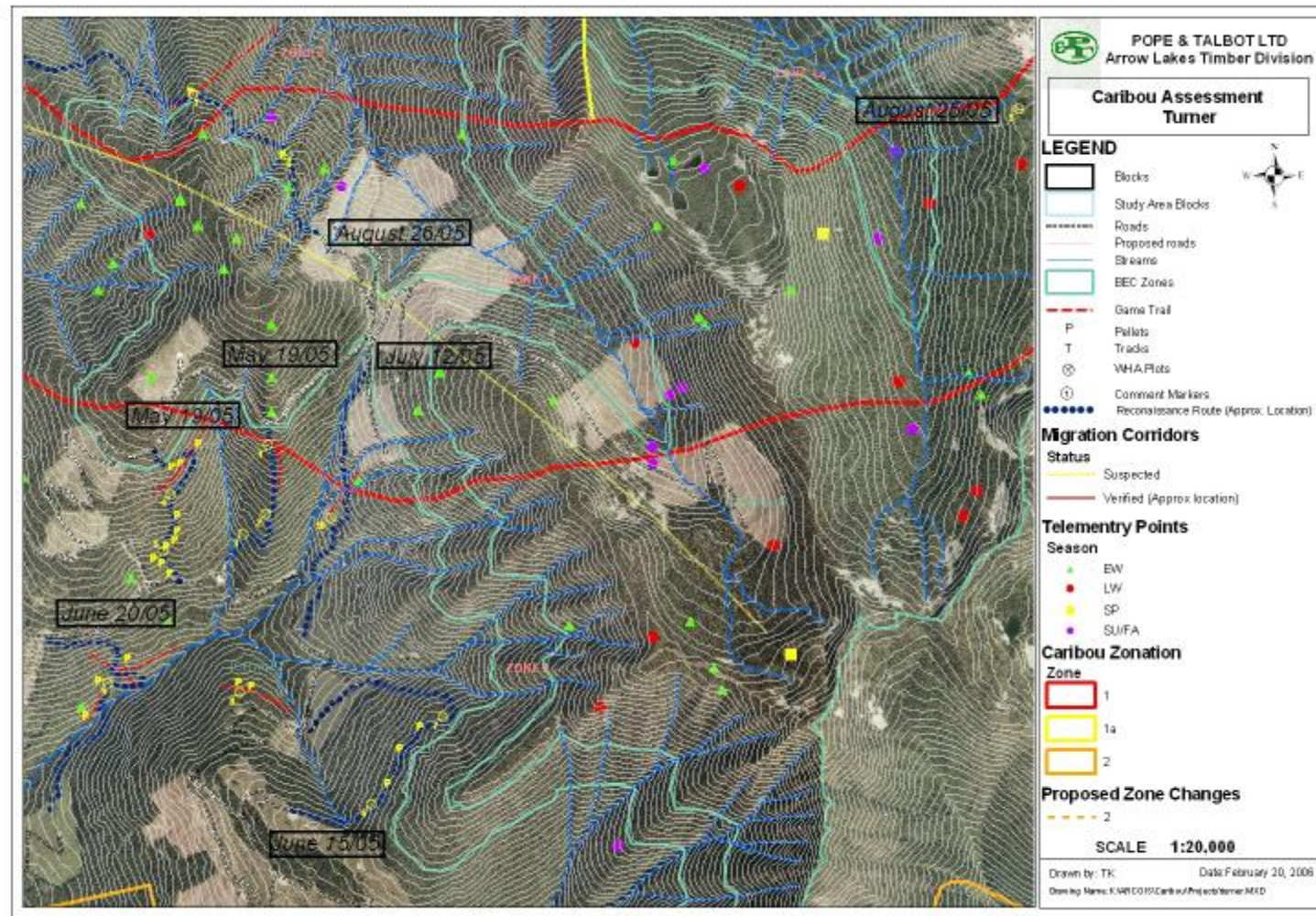


Figure 2: Turner Creek Telemetry and Field Sampling Locations

Reconnaissance-level Survey (May 19, 2005)

A reconnaissance through the proposed development area was completed on May 19, 2005. The purpose of this reconnaissance was to assess caribou use and the value of the habitat for caribou in relation to this proposed development area.

Plot 1

Evidence of Use:

Caribou tracks less than 1 yr old were observed in plot 1. A moderate amount of caribou scat was found adjacent to this plot.

Habitat Evaluation:

The caribou habitat in this area was field rated as high for the early winter, moderate for late winter and low for the spring and summer fall seasons (Appendix 1). Lichen abundance was rated moderate (Class 3 50% *Alectoria*), and available at one meter from ground level, as well as on the branch litterfall (Figure 3).



Figure 3: WHA plot 1

Other Species:

Mule deer tracks and evidence of browsing (<1 yr old), as well as antler scrapes were observed in and around plot 1.

Plot 2

Evidence of Use:

Caribou scat less than 1 yr old was observed above plot 2 (Figure 4). A well-defined game trail runs up and down this ridgeline. Caribou scat was observed along this trail (Figure 5).

Habitat Evaluation:

This area was field rated as high for the early winter, moderate for late winter and low for other seasons. Lichen abundance was rated moderate (Class 3: 70% *Alectoria spp.*) and available within one meter of the ground, as well as in the form of litterfall.



Figure 4: WHA Plot 2



Figure 5: Trail along the ridgeline between plot 1 and plot 2

Other Species:

Mule deer tracks and scat (<1 yr old) were observed.

Plot 3

Evidence of Use:

No evidence of caribou was observed.

Habitat Evaluation:

This area was field rated as very low for all seasons (Appendix 3). Lichen abundance was rated as low (Class 2; 80% *Alectoria spp.*) and found mostly in the upper canopy. The ground in this creek gully is very steep >80%. (Figure 6)



Figure 6: WHA Plot 3

Other Species:

No sign of other wildlife was observed.

Plot 4

Evidence of Use:

Caribou scat was observed adjacent to plot 4.

Habitat Evaluation:

This area was field rated as high for the early winter, moderate for late winter and low for other seasons. (Appendix 4) Lichen abundance was rated moderate (Class 3: 50% *Alectoria spp.*) and available at one meter from ground level, as well as on the branch litterfall. The trees along the semi open ridgeline between plot 4 and 5 support good lichen growth (as high as class 5) and caribou tracks and scat (both young and old) are abundant, indicating a high level of use over the past years. (Figure 6 & 7)



Figure 6: WHA Plot 4



Figure 7: Semi open ridgeline with evidence of high caribou use between WHA plot 4 and 5

Other Species:

Mule deer tracks and numerous antler scrapes and scat (<1 yr old) were observed.

Plot 5

Evidence of Use:

Caribou scat and tracks less than one year old were observed, indicating a high level of recent use.

Habitat Evaluation:

The caribou habitat in this area was field rated as high for the early winter, moderate for late winter and spring, and low for the summer fall seasons. (Appendix 5). Lichen abundance was high (Class 4: 20% *Alectoria spp.*) and available within one meter from ground level, as well as in the form of litterfall. This ridgeline has overall high habitat value for caribou. (Figure 8).



Figure 8: WHA plot 5

Other Species:

Mule deer tracks, scat and numerous antler scrapes (<1 yr old) were observed

Reconnaissance-level Survey

A reconnaissance along the timbered hillside above and to the south east of the proposed development area was completed on June 15, 2005. (Figure 2) The purpose of this reconnaissance was to assess caribou use and the value of the habitat for caribou in the southeast portion of the Turner planning unit.

Plot 6

Evidence of Use:

No evidence of caribou was found.

Habitat Evaluation:

This area was field rated for caribou habitat values as moderately low for the early winter, and low for the late winter, spring and summer fall seasons. (Appendix 6) Lichen abundance was rated moderate (Class 3: 90% *Alectoria spp.*), and only available at 4meters above ground level This stand of self-pruned hemlock and cedar trees has a closed canopy allowing little light penetration to the forest floor. The forest floor is rock rubble covered with moss, and lacks lush herbaceous forage.

Other Species:

Mule deer tracks and scat (<1 yr old) were observed between plot 6 and the clearcut to the south of plot 6.

Plot 7

Evidence of Use:

No evidence of caribou was observed. Three piles of caribou scat (<1 yr old) were observed along the route between plot 6 and 7.

Habitat Evaluation:

This area was field rated as moderately low for the early winter, and low for late winter, spring and summer fall.(Appendix 7) Lichen abundance was rated moderate (Class 3: 85% *Alectoria spp.*) and only available in the upper canopy. This stand of timber lacks herbaceous vegetation on the forest floor.

Other Species:

No other evidence of use was observed.

Reconnaissance-level Survey

A reconnaissance below the road through the south portion of the proposed development area was conducted on June 20, 2005. (Figure 2) The purpose of this reconnaissance was to assess caribou use and the value of the habitat for caribou in relation to this development area.

Plot 8

Evidence of Use:

Old caribou scat was found along a trail leading east west through plot 8. This trail follows a ridgeline up to the old clearcut above.

Habitat Evaluation:

This area was field rated as having low caribou habitat value for all seasons.(Appendix 8) Lichen abundance was rated low (Class 2: 90% *Alectoria spp.*) and is mostly present in the upper canopy of the trees, a small amount of lichen is available on the ground in the form of litterfall.(Figure 9)



Figure 9: trail through plot 8

Other Species:

Deer tracks and bear excrement were present along the trail leading through plot 8 towards the clearcut above.

Plot 9

Evidence of Use:

Caribou scat and tracks less than a year old were found adjacent to plot 9. Several game trails in this area identify regular use.

Habitat Evaluation:

This area was field rated as high for the early winter, moderate for spring and low for the late winter and summer fall seasons. (Appendix 9) Lichen abundance was rated high (Class 4: 95% *Alectoria spp.*)

Other Species:

Deer pellets less than one year old were observed,

Reconnaissance-level Survey

A reconnaissance along the timbered hillside to the east of the proposed development area was completed on July 12, 2005. (Figure 2). The purpose of this reconnaissance was to assess caribou use and the value of the habitat for caribou in this area.

Plot 10

Evidence of Use:

Caribou scat less than a year old was found along the bottom edge of the clearcut to the north of plot 10.

Habitat Evaluation:

This area was field rated as moderate for the early winter, and low for all other seasons. (Appendix 10). Lichen abundance was rated low (Class 2: 95% *Alectoria spp.*) Very little forage is available in this area for caribou during all seasons. (Figure 10)

Other Species:

Deer tracks less than one year old were observed along a game trail leading from the clearcut above plot 10.



Figure 10: WHA plot 10

References Cited

- Armleder, H.M., S. Stevenson, and S.D. Walker. 1992. Estimating the Abundance of Arboreal Forage Lichens. Land Management Handbook Field Guide Insert 7. Ministry of Forests, Research Program, Victoria, BC.
- LUP (Landscape Unit Planning) Working Group. 2002. Caribou Management in TFL#23: Agreement for District-Level Implementation Issues. Prepared for Arrow Forest District, Castlegar, BC.
- Hamilton, D., D. Seaton and C. Leitch. 2004. TFL23 Mountain Caribou Landscape Unit Planning and Reporting Procedures, Version 3.0. Arrow Forest District.
- Hamilton, D., and S.F. Wilson. 2002. Central Selkirk Mountain Caribou Habitat Use and Species-habitat Model for TFL23. Prepared for Pope & Talbot, Nakusp, BC.
- Resource Inventory Committee. 1998. Field manual for describing terrestrial ecosystems, Land Management Handbook No. 25. BC Ministry of Forests and BC Ministry of Environment, Lands and Parks, Victoria, BC.

Appendix 1: WHA Plot 1

BRITISH COLUMBIA

Project id: TURNER Date: 10.50.51.9 N4 ab feature type: page: of

Plot no. Surveyor: DS PS

Species	Habitat use / San		Plot type		Plot-in-contact																		
	Sp	Ln	San	FD	SH	TH	Com	Habitat feature	Dist	Distance (km)	Habitat feature	Dist	Distance (km)	Habitat feature	Dist	Distance (km)	Habitat feature	Dist	Distance (km)	Habitat feature	Dist	Distance (km)	
M.R.B.T.A.	1	1	MP	2																			
			MP	3																			
			P	//																			
			SE	//																			

Comments/Notes: Plot 1a2

FS-662 (3) HPL 980

BRITISH COLUMBIA

Project id: TURNER Plot no.

Evidence of Use										Plot no.									
Inside plot					Outside plot and inside ecosystem unit					Outside plot and inside ecosystem unit									
Species	Sex	Life Stage	Activity	Dist	No.	Com.	Sex	Life Stage	Activity	Dist	No.	Com.	Sex	Life Stage	Activity	Dist	No.	Com.	
M.R.A.T.A.	U	U	T	W	O	I													
M.O.D.H.H	U	A	E	X	O	L													

Comments/Notes:

Abbreviated Tree Attributes for Wildlife				Simple Coarse Woody Debris				Sampled				m of 20 m transect			
S.A.F.	Area	Min DBH	No. trees	Decay class	Dist	No.	Com.	Decay class	Dist	No.	Com.	Decay class	Dist	No.	Com.

Comments: 60% BRVDRIA

Management						
Species (Sp group)	Use	Gen.	H.C. LR(s)	Cap	Mgmt. Tech.	M. Feat./Int.

Comments/Notes:

FS-662 (3) HPC 980

Appendix 2: WHA Plot 2

[illegible]

ΓΣ 367 :5, ΗΓΓ 22:5

[illegible]

65 002 15; HAD 642

Appendix 3: WHA Plot 3

[illegible]

FS 002 3: 477 865

[illegible]

72 992 (5114) = 925

Appendix 5: WHA Plot 5

Project id.		Plot no.		Surveyor		Date		N-habit feature		Type		Page of							
Species		Habitat / Sub		Plot type		Plot-in-context													
5-letter code	Sp. LR	Sub	FD	SH	TH	Com	Habitat feature	Dist (km)	FAC LR	Imp	Habitat feature	Dist (km)	FAC LR	Imp	FD	SH	TH	Sub	Com
M.R.A.T.A	L.W.E.2																		
	L.W.3																		
	P.3																		
	S.F.4																		
Comments/Notes: DRY SITE FEW HERBIVOROUS PLANTS																			

T23-23 (2) TFL#23

Project id.		Plot no.		Evidence of Use		Inside plot		Outside plot and inside ecosystem unit																															
Species	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Com.																					
M.R.A.T.A	U	A	E	X	Y	H	U	U	T	F	Y	M	U	A	E	X	Y	H																					
M.O.D.A.H	U	A	E	X	O	L	U	A	T	W	F	L																											
Comments/Notes: ABUNDANT CARIBOU USE. ALONG RIVER																																							
Abbreviated Tree Attributes for Wildlife										Simple Coarse Woody Debris																													
B.A.F.					Area					Min DBH					Decay class					Sampled					m of 30 m transect														
No. of trees					No. dead					No. live					Decay class					Sampled					m of 30 m transect														
Avg. DBH (cm)					Avg. height (m)					Decay class					Sampled					m of 30 m transect																			
Avg. height class					Comments					Decay class					Sampled					m of 30 m transect																			
4					80% decayed																																		
Management																																							
Species (Sp. group)					Use					Sav.					FAC LR(s)					Cap.					Mgmt Tech					M. Feet / In.					Comments/Notes				

T23-23 (2) TFL#23

Appendix 6: WHA Plot 6

BRITISH COLUMBIA

Project id: **TURNER** Date: **0.5.0.6.1.5** N-Hab: **1** Type: **1** Page: **1** of **1**

Plot no: **6** Surveyor: **D-S-**

Species	Habitat / Sex		Plot type		Plot-in-context																				
	Sp	LR	Sex	FD	SH	TH	FC	Habitat	Cont.	Distance (m)	FC	LR	Imp.	Habitat	Cont.	Distance (m)	FC	LR	Imp.	FD	SH	TH	Sub	Com	
M.R.B.T.A.			W	3																					
			W	4																					
			P	4																					
			S	4																					

Comments/Notes: (1) TALL SELF PRUNED HWY CL. NO LICKEN AT GROUND LEVEL
(2) ROCKY RUBBLE COVERED WITH MOPS. NO LUSH VEG

FS 882 (5) HHL 9/03

BRITISH COLUMBIA

Project id: **TURNER** Plot no: **6**

Evidence of Use										Outside plot and inside ecosystem unit									
Species	Sex	Life Stage	Activity	Dist.	No.	Com.	Sex	Life Stage	Activity	Dist.	No.	Com.	Sex	Life Stage	Activity	Dist.	No.	Com.	
M.O.D.H.A																			

Comments/Notes: SMALL AMOUNT OF LICKEN. NO TRAILS.

Abbreviated Tree Attributes for Wildlife				Simple Coarse Woody Debris				Sampled				m of 30 m transect			
B.A.F.	Area	Min DBH		Decay class											
No. of trees	No. dead	No. DBH		Diagn. class											
Avg. DBH (cm)	Avg. length (m)			Decay class											
Avg. lsh load class	Common	90% Absence		Diagn. class											
ONLY ABOVE 2 m				Comments											

Management							
Species (Sp. group)	Use	Sex	FC LR (s)	Cap.	Mgmt. Tech.	M. Feat/Int	Comments/Notes

FS 882 (5) HHL 9/03

73 582 (5) 14RE 8W3

ГД 662 15: НФЕ 80/3

Appendix 9: WHA Plot 9

Project id.		Date		Nhab. Instum		Type		Page of	
Plot no.		Surveyor		Nhab. Instum		Type		Page of	
Species		Habit type / Sam		Plot type		Plot-in context		Plot-in context	
Sketch code		Sp. L.R. Sp.		FD SH TH		Dist (km)		F/C Imp.	
MIRAITA	WE 2								
	W 4								
	P 3								
	SF 4								
Comments/Notes									
(1) WELL DEFINED TRAILS									

130622/1146 3015

Project id.		Date		Nhab. Instum		Type		Page of	
Plot no.		Surveyor		Nhab. Instum		Type		Page of	
Evidence of Use		Inside plot		Outside plot and inside ecosystem unit		Evidence of Use		Evidence of Use	
Species		Sex		Life Stage		Activity		Dec. No. Com.	
MIRAITA									
MIRAITA									
MIRAITA									
Comments/Notes									
Abbreviated Tree Attributes for Wildlife									
Simple Coarse Woody Debris									
Simplified									
m of 30 m transect									
Management									
Species (Sp. group)									
Use									
Sex									
F/C L/R									
Dec. No. Com.									
M. Fuel/Int.									
Comments/Notes									

130622/1146 3015

Appendix 10: WHA Plot 10

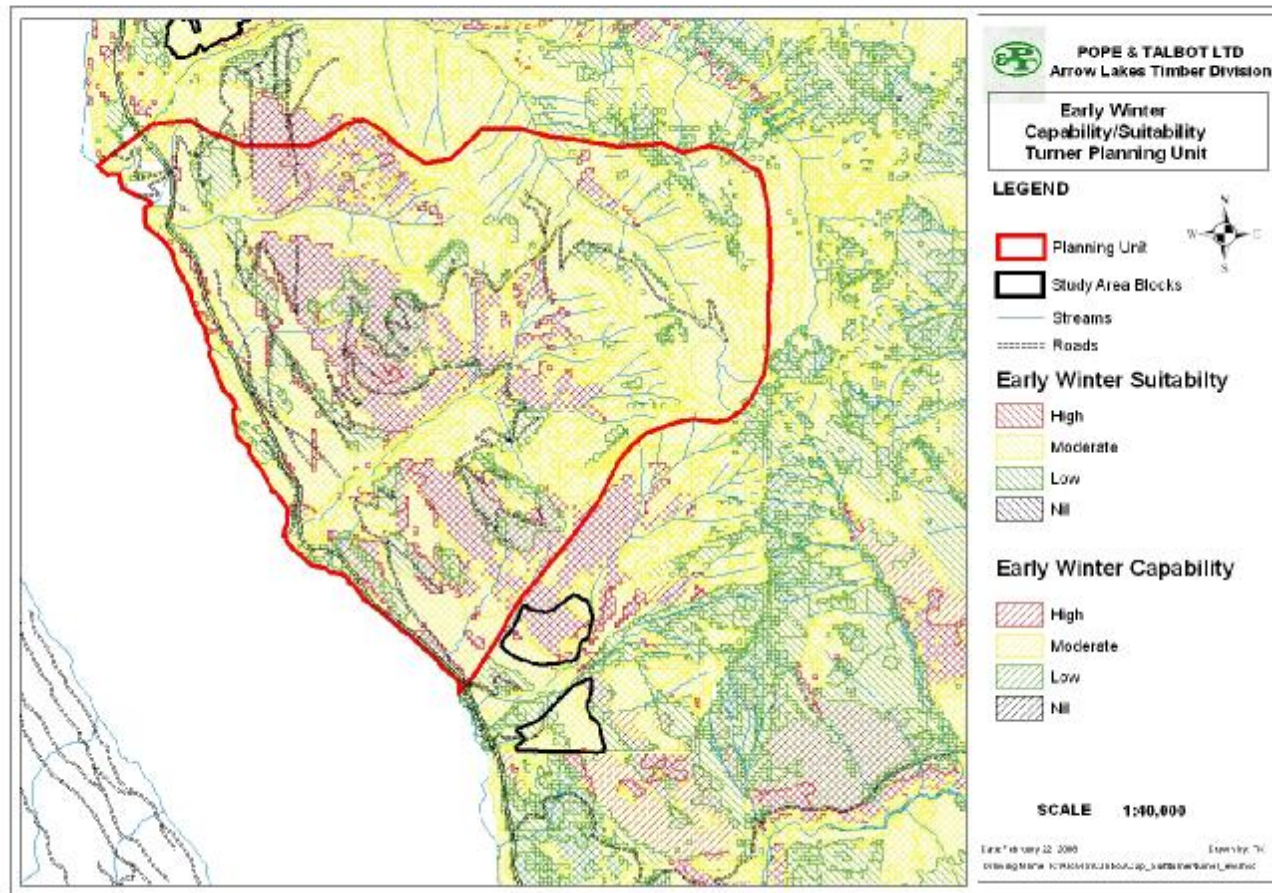
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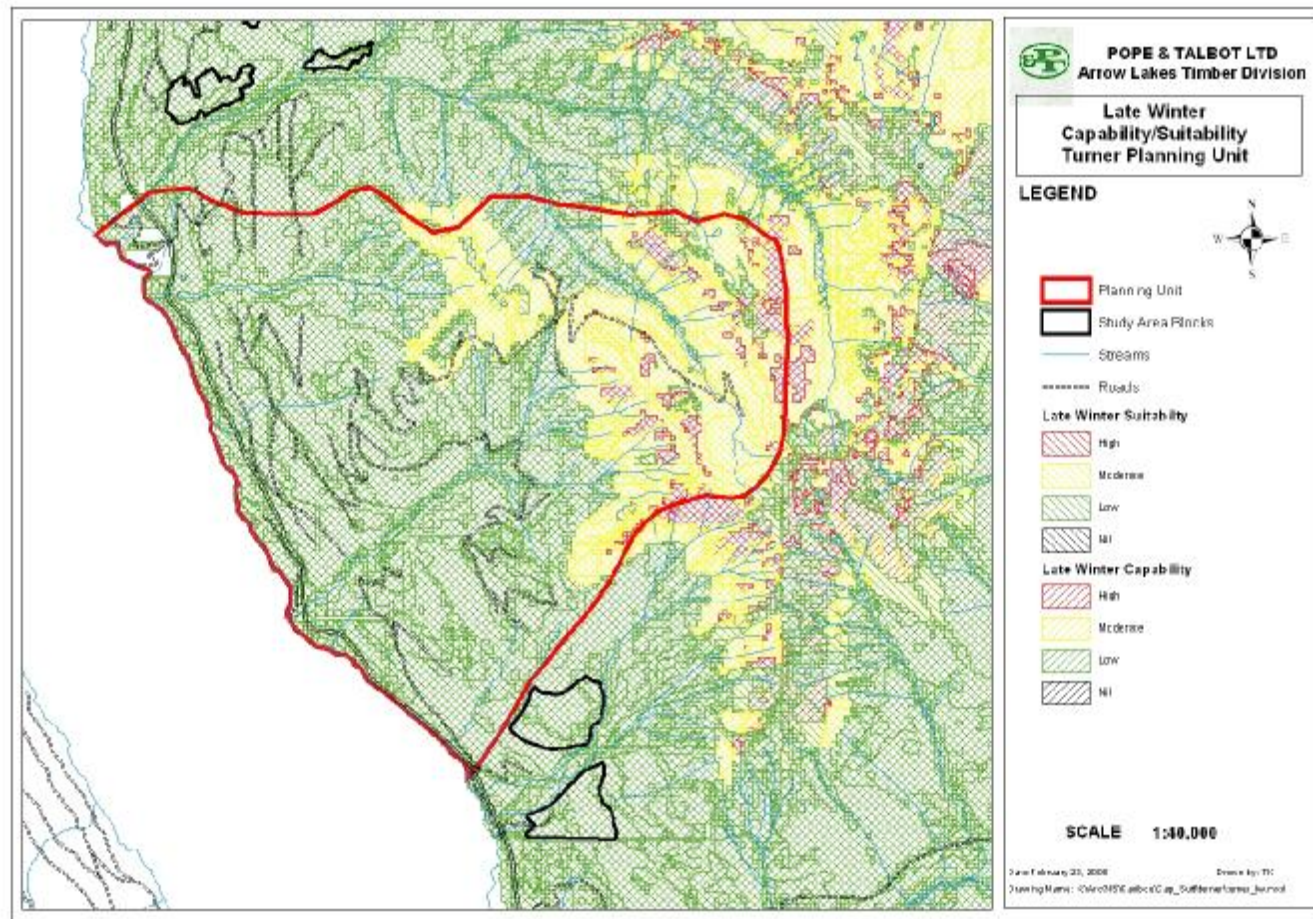
Project Id.		Plot no.																											
Evidence of Use		Inside plot										Outside plot and inside ecosystem unit																	
Species	Sex	Life Stage	Activity	Dist.	No.	Com.	Sex	Life Stage	Activity	Dist.	No.	Sex	Life Stage	Activity	Dist.	No.	Com.												
M.R.A.T.A												U	A	E	X	Y	L	U	A	T	W	Y	L	3					
Comments/Notes: ③ SEAT TRACKS ALONG CLEAR CUT																													
Abbreviated Tree Attributes for Wildlife										Simple Coarse Woody Debris										Sampled					m of 20 m transect				
BAF	Area	Min DBH		Max DBH		No. live		No. dead		Density class		Dist. class		Density class		Dist. class		Density class		Dist. class		Density class		Dist. class					
Avg DBH (cm)										Avg length (m)										Avg forked class					Comments				
2										15% DECIDUOUS										AVAILABLE AS LITTER FALL									
Management																													
Species (Sp. group)	Use	San.	FAC	LR/SL	Cap.	Wgmt. Tech.	M. Feat.	Int.	Comments / Notes																				

1582 12 17 34.5

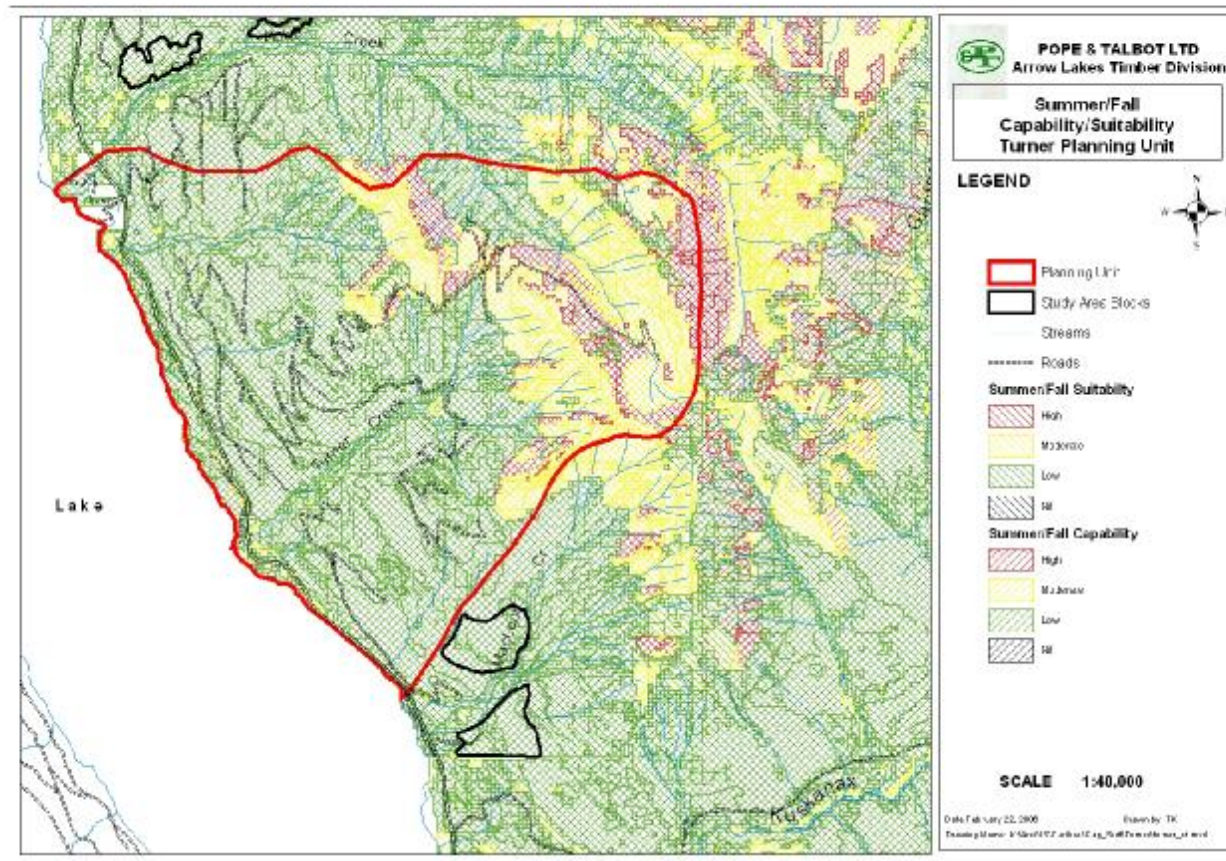
Appendix 11: Early winter caribou habitat capability/suitability – Turner PU



Appendix 12: Late winter caribou habitat capability/suitability – Turner PU



Appendix 13 Spring caribou habitat capability/suitability – Turner PU



Appendix 14: Summer/fall caribou habitat capability/suitability – Turner PU

